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SEQUENCE LISTING

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TECH CENTER 1600/2500

<110> Musser, James M.
Kapur, Vivek

<120> Vaccines Containing Cysteine Protease and Methods to Protect
Against Group A Streptococci

<130> P00965US0

<140> US 08/160,965

<141> 1993-12-02

<160> 22

<170> PatentIn version 3.1

<210> 1

<211> 11

<212> PRT

<213> streptococcus pyogenes

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<211> 22

<212> DNA

<213> Artificial Sequence

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gttggtcagtg tcaactaacc gt

22

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ctttctggct ctaatatgta tgt

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<212> DNA
<213> Artificial Sequence

<220>
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gttattgaaa aagtaaaacc

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His Gln Ile Asn Arg Ser Asp Phe Ser Lys Gln Asp Trp Glu Ala Gln
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Ile Asp Lys Glu
20

<210> 9
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<220>
<223> Synthetic Sequence

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His Gln Ile Asn Gly Asp Phe Ser Lys Gln Asp Trp Glu Ala Gln Ile
1 5 10 15

Asp Lys Glu



<210> 10
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His Gln Ile Asn Ser Asp Phe Ser Lys Gln Asp Trp Glu Ala Gln Ile
1 5 10 15

Asp Lys Glu

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Pro Val Ile Glu Lys Val Lys Pro Gly Glu Gln Ser Phe Val Gly Gln
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<223> Synthetic Sequence

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Tyr His Asn Tyr Pro Asn Lys Gly Leu Lys Asp Tyr Thr Tyr Thr Leu
1 5 10 15

<210> 13



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<213> Artificial Sequence

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Pro Thr Tyr Ser Gly Arg Glu Ser Asn Val Gln Lys Met Ala Ile
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Ile Asp Gly Ala Asp Gly Arg Asn Phe Tyr His
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Gln Ile Asn Arg Ser Asp Phe Ser Lys Gln
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<210> 16
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Gln Ile Asn Arg Gly Asp Phe Ser Lys Gln
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Gly Val Gly Lys Val Gly
1 5

<210> 18
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<212> PRT
<213> streptococcus pyogenes

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Gly Xaa Xaa Gly Xaa Xaa Gly Xaa Xaa
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<223> Synthetic Sequence

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<223> N equals unknown and can occur an infinite number of times

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